CLAIMS

1. A coaxial feedthrough connector for connecting an RF signal through a wall in a hazardous environment, the connector comprising:

(a) a base having an axial passage defined by a passage interior surface;

(b) a coaxial transmission line extending through the passage; and

(c) a nonconductive sealing compound filling at least a longitudinal segment of the passage and sealingly engaged to both the transmission line and to the passage surface.

2. A connector in accordance with claim 1 wherein the sealing compound is a silicone sealing compound.

3. A connector in accordance with claim 2 wherein the silicone sealing compound is a two part, GE-RTV-627 compound.

4. A connector in accordance with claim 1, wherein a coaxial connector is mounted in an end of the passage for connection to a coaxial cable, the coaxial connector being electrically connected to the transmission line.

5. A connector in accordance with claim 4 wherein the base has a threaded boss extending from the base and coaxially with the passage for connecting the base to the wall or to a conduit connected to the wall.

6. A connector in accordance with claim 5 wherein a radome is mounted on the base opposite the boss and an antenna radiating element is mounted within the radome and is electrically connected to the transmission line.

7. A connector in accordance with claim 1 wherein the base comprises an outer base member and a coaxial insert mounted in a coaxial bore formed in the outer base member, the coaxial insert having a central passage coaxial with a central passage in the outer base member, the central passages being contiguous and together forming said axial passage.

8. A connector in accordance with claim 7, wherein the central passage of the outer base member is smaller than the central passage of the insert and a coaxial cable connector is engaged in the end of the smaller central passage, and wherein the sealing compound extends into sealing contact with the coaxial cable connector.

9. A connector in accordance with claim 8 wherein an interior, annular shoulder is formed in the insert adjacent the central passage of the outer base member for increased sealant sealing area between the insert and the outer base member.

10. A connector in accordance with claim 9 wherein the base has a threaded boss extending from the base and coaxially with the passage for connecting the base to the wall or to a conduit connected to the wall.

11. A connector in accordance with claim 10 wherein a radome is mounted on the base opposite the boss and an antenna radiating element is mounted within the radome and is electrically connected to the transmission line.

12. A connector in accordance with claim 11 wherein the sealing compound is a silicone sealing compound.

13. A connector in accordance with claim 12 wherein the silicone sealing compound is a two part, GE-RTV-627 compound.

14. A connector in accordance with claim 1, wherein a coaxial boss is formed at each opposite end of the base, a coaxial cable connector is mounted in the boss at each end of the passage and each coaxial connector is electrically connected to an opposite end of the transmission line and in sealing contact with the sealing compound.

15. A connector in accordance with claim 14 wherein the sealing compound is a silicone sealing compound.

16. A connector in accordance with claim 15 wherein the silicone sealing compound is a two part, GE-RTV-627 compound.